

## **General Notes for Water Projects**

- All workmanship and material shall be in accordance with City of Marysville standards and the
  most current copy of the State of Washington/APWA Standard Specifications for Road, Bridge,
  and Municipal Construction. All water system improvements shall be constructed in accordance
  with these approved plans. Any deviation from the plans will require prior approval from the
  Owner, the City Engineer, and other approved public agencies.
- 2. A preconstruction meeting shall be held with the City prior to the start of construction.
- 3. It shall be the responsibility of the Contractor to locate or have located by the appropriate companies all utilities prior to beginning construction. Call Underground Locate at 1-800-424-5555 a minimum of 48 hours prior to any excavations.
- 4. Water pipe shall be ductile iron pipe standard thickness Class 52 cement-lined unless otherwise specified and shall conform to ANSI/AWWA C151/A21.51.
- 5. Gate valves shall be resilient wedge, NRS (Non Rising Stem) with O-rings seals. Valve ends shall be mechanical joint or ANSI flanges. Valves shall conform to AWWA 509-80. Valves shall be Mueller, M & H, Clow R/W or Waterous Series 500.
- 6. Fittings shall be ductile iron short body compact conforming to AWWA C110, C11 and C153 and shall be cement-mortar lined conforming to AWWA C104. The City will be given 72 hours notice prior to scheduling a shutdown. Where connections require "field verification", connection points will be exposed by Contractor and fittings verified 48 hours prior to distributing shut-down notices.;
- 7. Fire hydrants shall conform to AWWA C501 and shall be of standard manufacture and of a pattern approved by Marysville, with Stortz 4" quarter turn fitting. Hydrants shall be M & H Reliant Style 929 or Mueller A-423 (MJ). Hydrants shall be bagged until system is approved.
- 8. All lines shall be disinfected, flushed, and pressure tested in conformance with WSDOT/APWA standards and specifications. All pipe shall be tested at 240 psi. The Contractor shall furnish all temporary plugs, testing devices, etc. The City shall be present for all testing. The City will take purity tests, and connection will be authorized following passing of the tests. The Contractor shall not operate any valve or part of the City water system without notification and specific supervision of the City utility superintendent. The Contractor shall make all connections to the system required after making arrangements with the City in advance. Work and procedures shall conform to APWA Sec. 7-11.3(9).
- 9. Installation of pipe, fittings and valves, hydrants, and appurtenances shall conform to WSDOT/APWA standard specifications. Cover shall be 42 inches over the top of pipe unless

otherwise noted on plans. In the event grade revision following water main construction results in cover over the water main of less than 3 feet or in excess of 5 feet, the water main shall be reconstructed by the Owner to conform to the specifications of the City of Marysville unless depth has been pre-approved by the City. All added costs of inspecting such water main reconstruction shall be charged to the developer.

- 10. Prior to construction of any water mains, the lot corners shall be staked and water main locations established by survey, cost of which is to be borne by the developer.
- 11. To maintain the required alignment, use short lengths and deflect the joints or use necessary bends.
- 12. Bedding material meeting the requirements for rigid pipe shall be placed to a depth of 6" under and around the pipe and to a depth of at least 12 inches over the top of the pipe. The bedding materials hall be rammed and tamped around the pipe by the use of shovels or other approved hand-held tools so as to provide firm and uniform support over the full length of all pipe, valves, and fittings. Care shall be taken to prevent any damage to the pipe or its protective coating.
- 13. Separation of water and sewer mains shall conform to W.D.O.E. standards or special construction requirements.
- 14. Services, blow-offs, and miscellaneous details shall be shown on the drawings or standard plans.